

DRAFT amendemnt for discussion in  
interview of 07/09/2009

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Date: 07-09-09

Julie H. Gamotis

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of

**FAX: 571-273-1477**

Renno Hjorth Rokkjaer

Serial No. 10/590,020

Art Unit: 1794

Filed: October 23, 2006

Examiner: Cheryl Ann Juska

For: METHOD AND PLANT FOR PRODUCING CARPET SQUARES AND CARPET  
SQUARE

**PROPOSED DRAFT AMENDMENT**

To the Director of the Patent and Trademark Office

Sir:

In response to the Office Action mailed January 26, 2009:

Kindly amend the application as follows.

No new matter has been added by the amendments.

In the Claims:

Kindly amend the claims as follows:

Kindly cancel claims 1-11 without prejudice.

1-11. (Canceled) without prejudice.

12. (New) A method for producing carpet squares with carpet pile and a felt backing, comprising:

- making a semi-finished product with the carpet pile having a pile side and a back side,
- selecting felt for forming the felt backing having a front side towards the back side of the semi-finished product and a rear side away from the back side;
- forming a carpet web by coating the back side of the semi-finished product with the front side of the felt,
- forming an outermost layer of the carpet web away from the pile side by surface coating the rear side of the felt with a layer of curable polymer,
- curing the layer of curable polymer and providing dimensional stabilization and rigidity to the carpet web before punching, and
- punching the carpet web into desired shapes and dimensions.

13. (New) The method of claim 12, wherein the coating the back side of the semi-finished product comprises bonding the front side of the felt back with the back side of the semi-finished product by gluing.

14. (New) The method of claim 12, wherein the forming comprises forming the outermost layer and the semi-finished product partially or fully with the same material.

15. (New) The method of claim 14, wherein the forming with the same material comprises forming with polymer.
16. (New) The method of claim 12, wherein the curable polymer is a thermo-hardening water-based latex.
17. (New) The method of claim 16, wherein the curable polymer is in a form selected from the group consisting of liquid, crème, powder, and combinations thereof.
18. (New) The method of claim 12, wherein the surface coating is in a form selected from the group consisting of spraying, foaming, smearing on, and combinations thereof.
19. (New) The method of claim 12, wherein making the semi-finished product comprises making by methods selected from the group consisting of tufting, weaving, bonding, felting, and combinations thereof.
20. (New) The method of claim 12, wherein the curing is performed at a temperature between 60°C and 160°C.
21. (New) The method of claim 20, wherein the curing is performed at about 100°C.
22. (New) The method of claim 12, wherein the curing is by a method selected from the group consisting of heating, IR irradiation, UV irradiation, and combinations thereof.
23. (New) The method of claim 12, wherein the selecting felt comprises selecting the felt having a gram weight between 200 and 1500 g/m<sup>2</sup>.
24. (New) The method of claim 23, wherein the felt has a gram weight over 800 g/m<sup>2</sup>.
25. (New) The method of claim 12, wherein the costing with the curable polymer comprises coating in an amount between 50 and 500 g dry matter/m<sup>2</sup>.

26. (New) The method of claim 25, wherein the amount is less than 100 g dry matter/m<sup>2</sup>.

27. (New) A plant for producing carpet squares with a carpet pile and a felt backing comprising:

- a semi-finished product supply source for supplying a semi-finished product having a pile side and a back side,

- a felt source for supplying the felt backing having a front side and a rear side,

- a coating and carpet web forming unit for receiving the semi-finished product and the felt backing and for coating the back side of the semi-finished product with the front side of the felt backing and forming a carpet web,

- an application unit for forming an outermost layer of the carpet web by surface coating the rear side of the felt backing with a curable polymer layer,

- a curing unit for curing the curable polymer layer for imparting dimensional stabilization and rigidity the carpet web before punching, and

- a punching unit for punching the carpet web into desired shapes and dimensions, wherein the application unit and the curing unit are disposed between the coating and carpet web forming unit and the punching unit.

28. (New) The plant of claim 27, wherein the coating and carpet web forming unit includes a storage and unwinding unit for receiving pre-formed and coiled semi-finished product, and a coiling unit for coiling the formed carpet web.

29. (New) The plant of claim 27, wherein the application unit, the curing unit and the punching unit are an independent part of the plant.

30. (New) A carpet square punched out from a carpet web comprising a carpet web having first and second parts, the first part comprising a pre-formed semi-finished product having a pile side and a back side, the second part comprising a felt backing having a front side and a rear side, the felt backing forming a coating on the back side of the first part and further comprising a surface coating of a cured polymer on the rear side forming the outermost layer of the carpet web imparting dimensional stabilization and rigidity to the carpet square.

31. (New) The carpet square of claim 30, wherein the felt backing comprises felt having a gram weight between 200 and 1500 g/m<sup>2</sup>

32. (New) The carpet square of claim 32, wherein the gram weight is more than 800 g/m<sup>2</sup>.

33. (New) The carpet square of claim 30, wherein the surface coating on the felt backing is in an amount of between 50 and 500 g dry matter/m<sup>2</sup>.

34. (New) The carpet square of claim 34, wherein the amount is less than 100 g dry matter/m<sup>2</sup>.

### REMARKS

Reconsideration and allowance are requested.

Applicant appreciates the Interview of July 9, 2009, courteously granted by Examiner Cheryl Juska to Applicant's representative Meera Narasimhan.

Newly added claims 12-34 are similar in scope to canceled claims 1-11 and also address the 35 U.S.C. 112 issues on page 2 of the office action. No new matter has been added by the above amendments or by the present response.

**Claims 12-34 are patentable under 35 U.S.C. 102(b) and 103(a) over Higgins (U.S. Patent No. 5,545,276).**

Claims 12-34 are not anticipated or rendered obvious by Higgins.

Applicant's invention comprises a carpet square having a felt (non-woven fibre not polymer) coating on a pre-formed carpet pile and a reinforcing outermost coating of cured polymer on the felt coating that makes the carpet web self sustaining before carpet squares are punched therefrom.

Higgins relates to a cushion backed carpet which has the traditional foam backing that is replaced in the present invention by felt. Higgins has a primary carpet with a reinforcement polymer material bonded to the primary carpet and is embedded in a polymer (polyurethane) cushion layer. Higgins teaches that there is no other layer between the cushion layer and the reinforcement layer embedded therein because the primary carpet is mated in-situ to the polyurethane forming composition without preheating the composition. Higgins provides a corresponding apparatus for forming the cushion backed carpet.

Higgins provides a carpet fabric 112 to an accumulator 150 in bonding unit 155. Simultaneously a reinforcement sheet 158 is provided to the unit 155. Higgins states that 158 is fibreglass nonwoven material with other possible materials being woven glass, woven polyester, nonwoven glass, and nonwoven polyester but no felt material. An adhesive 160 is applied to material 158 and the carpet fabric 112 and material 158 are pressed together over rolls 163, 165, forming a preliminary composite 166.

A backing material 170, which forms the outermost layer of the preliminary composite 166 when backing material 170 passes through scray 172 to a polymer application unit 175 in which polymer is applied and doctored with doctor blade 177 thereby coating an inner surface of the outermost layer 170 with a poly-urethane forming polymer 178 and forming a puddle on which composite 166 is laid. This combination of the composite 166, puddle 178 and outer layer 177 is then passed through a mating roll 180 and heated in a heating unit 182 forming a foam cushion.

Nothing in Higgins describe, teaches, suggests or remotely hints at the claimed felt backed carpet squares with a strengthening outermost layer of cured polymer. A prior art reference anticipates the subject of a claim only when the reference discloses every feature of the claimed invention, either explicitly or inherently (see Hazani v. Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361 (Fed. Cir. 1997) and RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984)).

Thus, since each and every limitation of Applicant's Claims is not disclosed in the patent, either expressly or through the principles of inherency, Claims 12-34 are patentable under 35 U.S.C. § 102(b). Claims 12-34 are also patentable under 35 U.S.C. 103(a).

### CONCLUSION

Reconsideration and allowance are respectfully requested.

Respectfully,

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